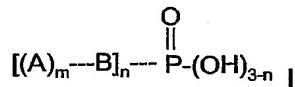


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Claims

1. A phosphoric acid ester and salts thereof of the general formula I,



wherein

5 A is a monohydroxyl residue derived from

$\text{C}_1\text{-C}_{20}\text{-alkyl-(AO)x-OH}$ or Acyl-(AO)x-OH ; or

$\text{C}_1\text{-C}_{20}\text{-alkyl -(AO)x-(HA)y-OH}$ or $\text{Acyl-(AO)x-(HA)y-OH}$; or

$\text{C}_1\text{-C}_{20}\text{-alkyl -(AO)x-(AA-AO)y-OH}$ or $\text{Acyl-(AO)x-(AA-AO)y-OH}$; or

MO -(HA)y-OH or MO-(AA-AO)y-OH ; wherein

10 Acyl is an aromatic carboxylic acid residue or a saturated or unsaturated fatty acid residue;

AO is a poly $\text{C}_2\text{-C}_4$ alkyleneglycol residue,

HA is a hydroxycarboxylic acid or a lactone thereof,

AA is a dicarboxylic acid,

15 MO is a monoalcohol,

x is 1 to 250,

y is 1 to 250,

20 B is a mono-, di-, tri- or polyhydroxy di-, tri- or multi-carboxylic acid residue which is linked via the hydroxy group to the phosphoric acid and via one of the carboxylic acid groups to the monohydroxyl residue [A], the remaining carboxylic acid group(s) is/are free or is/are esterified with a further monohydroxyl residue [A], resulting in branched esters;

n is 1-2;

m is 1-4.

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2. A phosphoric acid ester according to claim 1, wherein B has at least one free carboxylic acid group and no branching center.

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3. A phosphoric acid ester according to claim 1, wherein the free carboxylic acid group(s) of B is/are fully esterified.

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4. A phosphoric acid ester according to claim 1, wherein B has at least one free carboxylic acid group and at least one free carboxylic acid group is esterified.

5 5. A phosphoric acid ester according to any one of claims 1 to 4, wherein B is malic acid or citric acid.

6. A phosphoric acid ester according to any one of claims 1 to 5 wherein

10 Acyl is a saturated or unsaturated fatty acid residue;

AO is a polyC₂-C₃alkyleneglycol residue;

HA is ϵ -caprolactone or δ -valerolactone;

AA is a dicarboxylic acid;

MO is a monoalcohol having 4 to 30 carbon atoms in the alkyl chain,

15 x is 2 to 50,

y is 2 to 50.

7. A mixture of a phosphoric acid ester according to any one of claims 1 to 6 with a

20 phosphoric acid ester of polyC₂-C₄alkylene glycolmonoethers in wt ratio of 0.01 to 99.99; preferably 10 to 90, more preferably 50 to 50.

8. The use of a phosphoric acid ester of the formula I or salts thereof according to any one of claims 1 to 6 or of a mixture according to claim 7 as dispersant.

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9. The use of a phosphoric acid ester of the formula I or salts thereof in the production of sheet moulding compounds (SMC) or bulk moulding compounds (BMC).

10. The use of a phosphoric acid ester of the formula I or salts thereof in the production
30 of water- and solvent-based coatings and printing inks.